

REMARKS

INTRODUCTION:

As set forth in the preceding section, claims 1, 3, 6, 8, 11, 15, 16, 20, 21, 23, 26, 28, 30, 32, and 34 have been amended and claims 2, 7, 14, 19, 22, 27, 31, and 35 have been cancelled. No new matter has been added by way of the amendments. No claims have been added.

Claims 1, 3-6, 8-13, 15-18, 20, 21, 23-26, 28-30, 32-34, 36, and 37 are pending and under consideration. Claims 1, 3, 6, 8, 11, 15, 16, 20, 21, 23, 26, 28, 30, 32, and 34 are independent claims. Reconsideration of the claims in view of the current amendments and the following remarks is respectfully requested.

ALLOWABLE SUBJECT MATTER:

Claims 2, 3, 7, 8, 19, 20, 22, 23, 27, 28 31, 32 and 37 are indicated as allowable if rewritten in independent form.

REJECTIONS UNDER 35 U.S.C. §112:

Claims 1, 6, 11, 16, 21, 26, 30, and 34 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. This rejection is traversed and reconsideration is requested.

Each of the claims has been amended to address the rejection and to clarify the recitations and therefore the rejection of claims 1, 6, 11, 16, 21, 26, 30, and 34 for lack of written description should be withdrawn.

REJECTIONS UNDER 35 USC § 103:

Claims 1, 4-6, 9-18, 21, 24-26, 29, 30, 33, 34, 36 and 37 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,772,114 to Sluijter et al. ("Sluijter") in view of U.S. Patent No. 6,947,886 to Rose et al. ("Rose"). All rejections are respectfully traversed.

Applicants have amended each of independent claims 1, 6, 11, 16, 21, 26, 30, and 34 to include subject matter indicated as allowable from dependent claims 2, 7, 14, 19, 22, 27, 31, and

35. Furthermore, dependent claims 3, 8, 15, 20, 23, 28, and 32 have been written in independent form to include all of the features of the independent claim from which each claim respectively depends in addition to the allowable features of the dependent claims.

Applicants therefore respectfully submit that each of independent claims 1, 3, 6, 8, 11, 15, 16, 20, 21, 23, 26, 28, 30, 32, and 34 patentably distinguishes over the cited references, and should be allowable for at least the above-mentioned reasons.

Further, Applicants respectfully submit that claims 4, 5, 9, 10, 12-14, 17, 18, 24, 25, 27-29, 33, 36 and 37, which variously depend from independent claims 1, 6, 11, 16, 21, 26, 30, and 34, should be allowable for at least the same reasons as claims 1, 6, 11, 16, 21, 26, 30, and 34, as well as for the additional features recited therein.

Insufficient Reason to Combine Sluijter and Rose Articulated

Applicants respectfully submit that the rejections under 35 U.S.C. §103(a) fail to establish a prima facie case of obviousness. To establish a prima facie case of obviousness, there must be: 1) some reason to combine the references; 2) there must be a reasonable expectation of success; and 3) the references must either teach or suggest all the claim limitations or the Office must provide a rationale as to why the differences between the claimed invention and the prior art are obvious. MPEP 2141.

The reasoning provided at page 6 of the Office Action for combining Sluijter and Rose states:

Since Sluijter et al. and Rose et al. [*sic*] analogous art because they are from the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Sluijter et al. by replacing conventional coder (9 in figure 1) with the coder (in figure 3) of Rose et al. in order to improve bit rates while preserving signal quality.

In *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 127 SCt 1727, 167 LEd2d 705 (U.S. 2007), the U.S. Supreme Court held that in determining obviousness, it is necessary "to determine whether there was an apparent reason to combine the known elements in the fashion claimed" *KSR*, 82 USPQ2d at 1396. Further, "there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR* at 1396, quoting *In re Kahn*.

Applicants assert that the cited rationale for combining Sluijter and Rose is merely a conclusion and therefore fails to meet the standard articulated by the Supreme Court in *KSR International Co. v. Teleflex Inc.* For example, the Office fails to demonstrate *how* replacing the low frequency range encoder 9 of Sluijter with the entropy-coded scalar quantizers (ECSQ) Encoder of Rose would have improved bit rates while preserving signal quality. To the contrary, Applicants submit that the proposed combination of Sluijter and Rose would have changed the principle of operation of Sluijter as described below in more detail. Thus, one skilled in the art at the time of the invention would *not* have understood there to be a reasonable expectation of success in making the proposed combination. This amounts to an improper hindsight reconstruction of the presently claimed invention.

The Proposed Modification Would Change Sluijter's Principle of Operation

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. MPEP 2143.01 VI citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Here, the Office Action notes at page 5, that Sluijter “fails to explicitly disclose encoding the bandwidth-limited data into a hierarchical structure having a base layer and at least one enhancement layer so as to control a bit rate.” The Office Action then proposes to modify Sluijter with Rose, and asserts that Rose teaches the missing features. However, the Office Action provides no evidence that such a combination would even be technically feasible.

Regardless, Applicants assert that the Office’s proposed replacement of Sluijter’s low frequency range encoder 9 with the entropy-coded scalar quantizers (ECSQ) Encoder of Rose would fundamentally change the principle of operation of Sluijter.

For example, with respect to encoder 9, Sluijter states:

The input signal arrives through an input **19** of a transmitter (“TX”) **1**. A splitter (“SPL”) **7** splits up the input signal **19** into a signal that has a low frequency range and is processed by a first coder (“LFENC”) **9**, and a signal that has a high frequency range and is processed by a second coder (“HFENC”) **11**, the second coder **11** utilizing an LPC coder (“LPCENC”) **2** and a signal strength meter (“SSM”) **4** (col. 2, lines 55-61).

Sluijter separately explains that “the input signal is split up into two portions, so that an optimum coding for each of the two frequency ranges can be selected” (col. 2, lines 5-7). Thus, the principal of operation of Sluijter requires using LFENC 9 to encode **only** low frequency range

signals so as to achieve optimum coding for the low frequency range.

In contrast, the ECSQ Encoder of Rose is not placed in series with a splitter and therefore does not appear to receive and process **only** low frequency signals. Further in contrast to Sluijter's low frequency encoder 9, the signal input to the ECSQ Encoder of Rose is in the companded domain.

Accordingly, the Office's proposed replacement of Sluijter's low frequency range encoder 9 with the entropy-coded scalar quantizers Encoder of Rose would fundamentally change the principle of operation of Sluijter. The change in principle of operation resulting from the modification of Sluijter is fatal to a prima facie case of obviousness, especially in view of the absence of a "convincing" line of reasoning as to why one of ordinary skill would have been motivated to make the suggested combination/modification. For this reason, Applicants assert that one skilled in the art would **not** have had a reason to combine the teachings of Sluijter with those of Rose, and the rejections under 103(a) are improper.

REQUEST FOR ENTRY IN ACCORDANCE WITH 37 CFR 1.116:

Entry of this Amendment in accordance with 37 CFR 1.116 is respectfully requested. Applicants submit that this Amendment After Final Rejection places the subject application in condition for allowance. This Amendment was not presented earlier because Applicant believed that the prior Amendment placed the subject application in condition for allowance. Further, this Amendment should only require a cursory review because the claim amendments presented herein do not add new features. Accordingly, entry of the present Amendment is respectfully requested.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

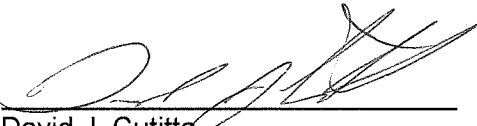
Serial No. 10/734,160

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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